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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application Number: 10/726,247
Filing Date: December 02, 2003
Appellant(s): AMUNDSON ET AL.

Crompton, Seager & Tufte, LLC
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 2/25/08 appealing from the Office action mailed 8/23/07.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

| | | |
|---|---|---|
| 6,983,889 | Alles | 01-2006 |
| 5,289,362 | Liebl et al. | 02-1994 |
| 7,130,719 | Ehlers et al. | 10-2006 |
| 5,395,042 | Riley et al. | 03-1995 |
| 5,257,736 | Roy | 11-1993 |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 54-57 are rejected under 35 U.S.C. 102(e) as being anticipated by Alles.

As per claim 54, Alles teaches a method for controlling an HVAC system that is adapted to modify and control at least one environmental condition of an inside space in accordance with a first set point (fig. 21; col. 31, line 40 through col. 32, line 5; *a first set point 2113*), the method comprising: deactivating at least a first part of the HVAC system to not modify and control at least one environmental condition of the inside space in accordance with the first set point (figs. 20-22; col. 31, lines 13-17; col. 31, line 40 through col. 32, line 5; *when the temperature reaches a certain threshold level 2113 and 2116, a signal is sent to deactivate one or more component in the system such as heating or AC*); monitoring the environmental condition in the inside space that the HVAC system is no longer modifying and controlling and automatically activating the at least one part of the HVAC system to again modify the environmental condition in the

inside space if the environmental condition in the inside space passes a second set point wherein the second set point is different than the first set point (fig. 21; col. 31, line 40 through col. 32, line 5; *a second set point 2116*).

As per claim 55, Alles teaches a method for controlling an HVAC system that is adapted to modify and control at least one environmental condition of an inside space against a first set point wherein the at least one environmental condition is one or more of temperature or humidity (fig. 21; col. 31, line 40 through col. 32, line 5; *an environmental condition such as a temperature of an inside space is modified and controlled against a first set point such as 2113*).

As per claim 56, Alles teaches a method for controlling an HVAC system that is adapted to modify and control at least one environmental condition of an inside space against a first set point wherein the second set point is user selectable (fig. 21; col. 31, line 40 through col. 32, line 5).

As per claim 57, Alles teaches a method for controlling an HVAC system that has a fan that normally operates during heating and/or cooling operations (col. 9, lines 2-7) and comprises requesting a time indicator from a user (figs. 20-21; col. 27, line 50 through col. 28, line 8; col. 27, lines 25-27; col. 31, lines 46-64; col. 32, lines 58-67; *start time and end time are accepted via 2010 of PDA interface upon selection of any of the times such as 2004 of "Sleeping"*), over-riding the fan for a time corresponding to the time indicator provided by the user (fig. 21; col. 32, lines 11-12) and returning to normal fan operation after the time expires (fig. 20; *after the time for "Sleeping" expires, fan operation returns to normally scheduled "Active" mode*).

Claims 66-71 are rejected under 35 U.S.C. 102(e) as being anticipated by Ehlers et al. ("Ehlers").

As per claim 66, Ehlers teaches a method for controlling an HVAC system that is adapted to modify and control an environmental condition of an inside space of a structure, the method comprising: controlling a first environmental condition using a first control set point (col. 31, lines 8-9; *e.g. customer established first set point such as a set point for "holiday"*); sensing the first environmental condition outside of the structure and adjusting the first control set point if the environmental condition outside of the structure passes a predetermined value (col. 30, line 65 through col. 31, line 23).

As per claim 67, Ehlers teaches a method for controlling an HVAC system that is adapted to modify and control an environmental condition of an inside space of a structure wherein the environmental condition is temperature (col. 30, line 65 through col. 31, line 23).

As per claim 68, Ehlers teaches a method for controlling an HVAC system that is adapted to modify and control an environmental condition of an inside space of a structure wherein the environmental condition is humidity (col. 30, line 65 through col. 31, line 23; col. 29, lines 4-13; col. 8, lines 26-35).

As per claim 69, Ehlers teaches a method for controlling an HVAC system that is adapted to modify and control an environmental condition of an inside space of a structure wherein the first control set point is adjusted in a manner that reduces the load on the HVAC system (col. 31, lines 24-35).

As per claim 70, Ehlers teaches a method for controlling an HVAC system that is adapted to modify and control an environmental condition of an inside space of a structure wherein the first control set point is only allowed to be adjusted by a predetermined amount (col. 33, line 47 through col. 34, line 38; *user established first control set point is only allowed to be adjusted by a predetermined amount, i.e. having a set point offset of 4 degrees F in a maximum savings setting*).

As per claim 71, Ehlers teaches a method for controlling an HVAC system that is adapted to modify and control an environmental condition of an inside space of a structure, the HVAC system having a duty cycle that varies with the environmental condition outside of the structure, the method comprising: controlling the environmental condition in the inside space using a first control set point; sensing the duty cycle of the HVAC system and adjusting the first control set point if the duty cycle of the HVAC system exceeds a predetermined value (col. 30, line 65 through col. 31, line 23).

Claims 1-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Liebl et al. ("Liebl"), and further in view of Ehlers et al. ("Ehlers").

As per claim 1, although Alles teaches a method of modifying a programmable schedule for a controller having a user interface and comprising the steps of providing, simultaneously or sequentially, two or more schedule override choices to a user via the user interface, accepting a selection of one of the two or more schedule override choices from the user via the user interface and modifying the schedule based on the user responses provided via the user interface (figs. 20-21; col. 27, lines 17-27; col. 31, lines 40-45; *selecting any comfort-climate 2005 causes "Comfort-Climate" popup menu*

*2100 of the PDA interface to appear wherein popup menu 2100 displays schedule choices to a user wherein users may override a schedule choice by selecting one of the schedule choices 2101 to appear in the temperature schedule display 2001*), Alles does not explicitly disclose a method of automatically returning to the regular schedule following a regular schedule override, i.e. a schedule modified temporarily from a regular schedule. Liebl teaches a method of overriding and, therefore, providing a regular schedule and automatically returning to the regular schedule (figs. 2 and 9(A-C); col. 14, lines 33-67). It would have been obvious to an artisan at the time of the invention to incorporate the method of Liebl with the method of Alles given that, by automatically returning to a regular schedule after selection of a bookmarked custom mode, users are provided a time-saving benefit of not having to remember to make an additional selection to return to the regular schedule.

Alles and Liebl do not explicitly disclose temporarily overriding a regular schedule. Ehlers teaches overriding a regular schedule and automatically returning to the regular schedule (fig. 4H; following the temporary override, e.g. after 18 days, the system reverts to the regular schedule). It would have been obvious to an artisan at the time of the invention to incorporate the method of Ehlers with the method of Alles and Liebl given that users may temporarily override a regular schedule in one step versus two steps, thereby, providing users with a time-saving feature.

As per claim 2, the modified Alles teaches a method of modifying a programmable schedule for a controller having a user interface wherein the step of automatically returning to the regular schedule occurs after the selected schedule

override choices expires (Liebl: figs. 2 and 9(A-B); col. 14, lines 33-49). Furthermore, the step of automatically returning to the regular schedule occurs after the selected schedule override choices expires (Ehlers: fig. 4H).

As per claim 3, the modified Alles teaches a method of modifying a programmable schedule for a controller having a user interface wherein the providing step comprises providing one or more natural language schedule override choices (Alles: fig. 21;col. 27, lines 17-27; col. 31, lines 40-45; *natural language schedule override choices such as choices that include phrases with one or more provided words "Sleeping", "Active", "Empty", "Relaxing" or words entered by the user*).

As per claim 4, the modified Alles teaches a method of modifying a programmable schedule for a controller having a user interface wherein the accepting step further comprises accepting a schedule override start time, end time or duration, and temperature (Alles: figs. 20-21; col. 27, line 50 through col. 28, line 8; col. 27, lines 25-27; col. 31, lines 46-64; col. 32, lines 58-67; *start time and end time are accepted via 2010 of PDA interface upon selection of any of the times 2004, and temperature is accepted via 2110 or 2160 upon selection of 2102, 2122 or any of the temperature ranges 2008*).

As per claim 5, although the modified Alles teaches a method of modifying a programmable schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input (Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose a "Come Home Early" user input. Official Notice is taken that user's inputs such as "Come

Home Early" are well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate user's inputs such as "Come Home Early" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

As per claim 6, although the modified Alles teaches a method of modifying a programmable schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input (Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose a "Come Home Late" user input. Official Notice is taken that user's inputs such as "Come Home Late" are well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate user's inputs such as "Come Home Late" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

As per claim 7, although the modified Alles teaches a method of modifying a programmable schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input (Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose a "Get Up Early" user input. Official Notice is taken that user's inputs such as "Get Up Early" are well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate user's inputs such as "Get Up Early" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

As per claim 8, although the modified Alles teaches a method of modifying a programmable schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input (Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose a "Stay Up Late" user input. Official Notice is taken that user's inputs such as "Stay Up Late" are well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate user's inputs such as "Stay Up Late" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

As per claim 9, although the modified Alles teaches a method of modifying a programmable schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input (Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose a "Stay Home" user input. Official Notice is taken that user's inputs such as "Stay Home" are well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate user's inputs such as "Stay Home" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

As per claim 10, although the modified Alles teaches a method of modifying a programmable schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input (Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose an

"*On* Vacation" user input. Official Notice is taken that user's inputs such as "On Vacation" are well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate user's inputs such as "On Vacation" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

Claims 11 and 12 in combination is similar in scope to claim 2 and are therefore rejected under similar rationale, except for the UI being a touch screen which the modified Alles also teaches (Alles: col. 26, lines 54-66).

Claim 13 is similar in scope to claim 3 and is therefore rejected under similar rationale.

Claim 14 is similar in scope to claim 4 and is therefore rejected under similar rationale.

Claim 15 and 21 are individually similar in scope to claim 5 and are therefore rejected under similar rationale.

Claims 16 and 22 are individually similar in scope to claim 6 and are therefore rejected under similar rationale.

Claims 17 and 23 are individually similar in scope to claim 5 and are therefore rejected under similar rationale.

Claim 18 is similar in scope to claim 8 and is therefore rejected under similar rationale.

Claim 19 is similar in scope to claim 9 and is therefore rejected under similar rationale.

Claim 20 is similar in scope to claim 10 and is therefore rejected under similar rationale.

As per claim 24, although Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface and comprising the steps of providing one or more schedule override choices to a user via the user interface (figs. 20-21; col. 27, lines 17-27; col. 31, lines 40-45; *selecting any comfort-climate 2005 causes "Comfort-Climate" popup menu 2100 to appear wherein popup menu 2100 of the PDA interface displays schedule choices to a user wherein users may override a schedule choice by selecting one of the schedule choices 2101 to appear in the temperature schedule display 2001*), accepting one or more user responses to the one or more schedule override choices from the user via the user interface at a first time (fig. 21; *upon selection of 2121 to the one or more schedule override choices, a first time is accepted*) and modifying the schedule based on the user responses provided by the user interface at a second time wherein the second time is later than the first time (fig. 21; *modifying the schedule based on selection of 2005 such as "Active" at a second time wherein the second time is later than the first time "Sleeping"*), Alles does not explicitly disclose that the schedule is modified temporarily. Liebl teaches a schedule override that is modified temporarily (figs. 2 and 9(A-C); col. 14, lines 33-67). It would have been obvious to an artisan at the time of the invention to incorporate the method of Liebl with the method of Alles given that, by automatically returning to a regular schedule after selection of a bookmarked custom mode, users are provided a time-

saving benefit of not having to remember to make an additional selection to return to the regular schedule.

Alles and Liebl do not explicitly disclose a step of temporarily overriding a regular schedule such that the overriding step begin at a second time that is later than the first time. Ehlers teaches a step of selecting a temporary schedule override among multiple temporary schedule overrides wherein the overriding step begin at a second time that is later than the first time (fig. 4H; following the temporary override, e.g. after 18 days, the system reverts to the regular schedule). It would have been obvious to an artisan at the time of the invention to incorporate the method of Ehlers with the method of Alles and Liebl given that users may temporarily select schedule override(s) in one step versus two steps, thereby, providing users with a time-saving feature.

As per claim 25, the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the modifying step comprises the second time being later than the first time by a user selected time interval (Ehlers: via UI of fig. 4H; Alles: fig. 20; col. 27, line 50 through col. 28, line 8; *a 2-hour time interval between 6:00 am and 8:00 am was chosen wherein the time may be edited by selecting 2004*).

As per claims 26 and 39, the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the modifying step comprises a user selected time interval (Ehlers: via UI of fig. 4H) is at least 10 minutes (Alles: fig. 20; col. 27, line 50 through col. 28, line 8).

As per claims 27 and 40, the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the modifying step comprises a user selected time interval (Ehlers: via UI of fig. 4H) is at least 30 minutes (Alles: fig. 20; col. 27, line 50 through col. 28, line 8).

As per claims 28 and 41, the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the modifying step comprises a user selected time interval (Ehlers: via UI of fig. 4H) is at least 1 hour (Alles: fig. 20; col. 27, line 50 through col. 28, line 8).

As per claims 29 and 42, although the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the modifying step comprises a user selected time interval (Ehlers: via UI of fig. 4H) of increments of 2, 3, 5 and 6 hours wherein the time marking an interval between choices can be edited by the user (Alles: fig. 20; col. 27, line 50 through col. 28, line 8), Alles does not explicitly disclose the chosen time interval to be at least 24 hours. Official notice is taken that a 24-hour chosen time interval is well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate 24-hour chosen time interval with the method of the modified Alles in order to provide users with greater laxity in scheduling by not requiring a time period limitation.

As per claims 30 and 44, the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the accepting step further comprises accepting a schedule override start time, end time or duration, and temperature, wherein the start time is the second time (Alles: figs. 20-21;

col. 27, line 50 through col. 28, line 8; col. 27, lines 25-27; col. 31, lines 46-64; col. 32, lines 58-67; *start time and end time are accepted via 2010 of PDA interface following selection of any of the times 2004, and temperature is accepted via 2110 or 2160 upon selection of 2102, 2122 or any of the temperature ranges 2008*).

As per claims 31 and 45, although the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input within a menu or a listing of choices (Ehlers: fig. 4H; Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose a "Come Home Early" user input. Official Notice is taken that users' inputs such as "Come Home Early" are well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate user's inputs such as "Come Home Early" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

As per claim 32, although the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input (Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose a "Come Home Late" user input. Official Notice is taken that users' inputs such as "Come Home Late" are well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate users' inputs such as "Come Home

Late" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

As per claims 33 and 46, although the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input within a menu or a listing of choices (Ehlers: fig. 4H; Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose a “Get Up Early" user input. Official Notice is taken that users inputs such as "Get Up Early" is well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate users’ inputs such as "Get Up Early" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

As per claims 34 and 47, although the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input within a menu or a listing of choices (Ehlers: fig. 4H; Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose a "Stay Up Late" user input. Official Notice is taken that users inputs such as "Stay Up Late" user inputs are well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate users’ inputs such as "Stay Up Late" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

As per claims 35 and 48, although the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input within a menu or a listing of choices (Ehlers: fig. 4H; Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose a "Stay Home" user input. Official Notice is taken that users' inputs such as "Stay Home" are well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate users' inputs such as "Stay Home" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

As per claims 36 and 49, although the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the providing step comprises displaying a natural language schedule override choice that users input within a menu or a listing of choices (Ehlers: fig. 4H; Alles: figs. 21-23; col. 32, lines 28-47), the modified Alles does not explicitly disclose an "*On* Vacation" user input. Official Notice is taken that users' inputs such as "On Vacation" are well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate users' inputs such as "On Vacation" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

Claims 37 and 38, in combination, are similar in scope to claim 24 and are therefore rejected under similar rationale.

Claim 43 is similar in scope to claim 30 and is therefore rejected under similar rationale.

Claims 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Riley et al. ("Riley"), and further in view of Ehlers et al. ("Ehlers").

As per claim 50, although Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface and comprising the steps of providing one or more schedule override choices to a user via the user interface (figs. 20-21; col. 27, lines 17-27; col. 31, lines 40-45; *selecting any comfort-climate 2005 causes "Comfort-Climate" popup menu 2100 to appear wherein popup menu 2100 of the PDA interface displays schedule choices to a user wherein users may override a schedule choice by selecting one of the schedule choices 2101 to appear in the temperature schedule display 2001*)accepting a start time, end time or duration, and energy saving temperature response to the one or more schedule comfort override choices from the user via the user interface at a first time (figs. 20-21; col. 27, line 50 through col. 28, line 8; col. 27, lines 25-27; col. 31, lines 46-64; col. 32, lines 58-67; *following selection of any of the times 2004, start time and end time for a first time are accepted upon selection of 2121 to the one or more schedule override choices via 2010 of the PDA interface; temperature is accepted via 2110 or 2160 upon selection of 2102, 2122 or any of the temperature ranges 2008*) and modifying the schedule based on the user responses provided by the user interface at a second time wherein the second time is later than the first time (fig. 21; *modifying the schedule based on selection of 2005 such as "Active" at a second time wherein the second time is later than the first*

*time "Sleeping"*), Alles does not explicitly disclose that energy saving is included as one of the one or more schedule override menu choices. Riley provides for energy saving schedule override menu choices to a user (fig. 1A; col. 15, lines 22-50). It would have been obvious to an artisan at the time of the invention to incorporate the method of Riley with the method of Alles in order to utilize energy efficiently in accordance with users' budget.

Alles and Riley do not explicitly disclose a step of temporarily overriding a regular schedule such that the overriding step begin at a second time. Ehlers teaches a step of selecting a temporary schedule override among multiple temporary schedule overrides wherein the overriding step begin at a second time (fig. 4H; following the temporary override, e.g. after 18 days, the system reverts to the regular schedule). It would have been obvious to an artisan at the time of the invention to incorporate the method of Ehlers with the method of Alles and Riley given that users may temporarily select schedule override(s) in one step versus two steps, thereby, providing users with a time-saving feature.

As per claim 51, the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the modifying step comprises the second time being later than the first time by a user selected time interval (Ehlers: fig. 4H; Alles: fig. 20; col. 27, line 50 through col. 28, line 8; *a 2-hour time interval between 6:00 am and 8:00 am was chosen wherein the time may be edited by selecting 2004*).

As per claim 52, although the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the providing step comprises displaying a schedule energy saving override menu choice that is editable (Alles: figs. 21-23; col. 32, lines 28-47; Riley: fig. 1A; col. 15, lines 22-50), the modified Alles does not explicitly disclose that "Come Home Late" is displayed. Official Notice is taken that displaying words such as "Come Home Late" is well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate displaying words such as "Come Home Late" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

As per claim 53, although the modified Alles teaches a method of modifying a programmable HVAC schedule for a controller having a user interface wherein the providing step comprises displaying a schedule energy saving override menu choice that is editable (Alles: figs. 21-23; col. 32, lines 28-47; Riley: fig. 1A; col. 15, lines 22-50), the modified Alles does not explicitly disclose that “On Vacation" is displayed. Official Notice is taken that displaying words such as "On Vacation" is well known in the art. It would have been obvious to an artisan at the time of the invention to incorporate displaying words such as "On Vacation" with the method of the modified Alles in order to provide users full editing capabilities without any word/phrase restrictions.

Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Riley in view of Alles.

As per claim 58, Riley teaches a method for controlling an HVAC system that is adapted to modify and control at least one environmental condition of an inside space of a structure, the structure having at least one window that opens and closes, the method comprising based on user input into the UI, detecting an indication that a window is or has been opened, deactivating at least part of the HVAC system to not modify and control at least one environmental condition of the inside space, detecting an indication that the window is or has been closed, activating the at least part of the HVAC system that was deactivated to again modify and control the at least one environmental condition of the inside space (col. 15, lines 41-50; col. 18, lines 3-25; col. 28, lines 30-40). Riley does not explicitly disclose a displayed indication being provided by a user. Alles teaches a displayed indication being provided by a user (figs. 20-21; col. 27, line 50 through col. 28, line 8; col. 27, lines 25-27; col. 31, lines 46-64; col. 32, lines 28-47 and 58-67; *indications are provided by a user via mode creation and editing mode capabilities concerning temperature, time and naming/renaming of modes*). It would have been obvious to an artisan at the time of the invention to incorporate the method of Alles with the method of Riley in order to provide users greater flexibility in controlling environmental conditions, i.e. users have the flexibility to run the HVAC system at an alternate setting such as higher comfort level or lower comfort level based upon preferences or conditions that effect operations of the HVAC system such as an open window.

Claims 61-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riley in view of Alles, and further in view of Ehlers et al. (“Ehlers”).

As per claim 61, although the modified Riley teaches a method for controlling an HVAC system that is adapted to modify and control at least one environmental condition of an inside space of a structure, the structure having at least one window that opens and closes and further comprising the step of providing an alarm if one or more environmental conditions falls outside of a predetermined set point (Riley: col. 18, lines 27-31) while the at least part of the HVAC system is deactivated (Riley: col. 18, lines 3-25), the modified Riley does not explicitly disclose providing an alarm if one or more environmental conditions falls outside of a predetermined range. Ehlers teaches providing an alert/alarm if one or more environmental conditions falls outside of a predetermined range (fig. 4J; col. 45, line 39 through col. 46, line 8). It would have been obvious to an artisan at the time of the invention to incorporate the method of Ehlers with the method of the modified Riley in order to avoid rapid fluctuations around a single point.

As per claim 62, the modified Riley teaches a method for controlling an HVAC system that is adapted to modify and control at least one environmental condition of an inside space of a structure, the structure having at least one window that opens and closes wherein the alarm is provided when an environmental condition such as an inside temperature drifts beyond a temperature set point, i.e. the alarm is provided based on a detection of an inside temperature drifting beyond a set point, including activating/deactivating at least a part of the HVAC system to modify an environmental condition if the environmental condition passes a set point and activating/deactivating at least a part of the HVAC system to modify an environmental condition if a situation such

as an open window is detected (Ehlers: fig. 4J; col. 45, line 39 through col. 46, line 8; Riley: col. 2, lines 9-21). Furthermore, the modified Riley teaches an open window set point wherein the open window set point is an arbitrary number set by the user, thereby, anytime a user establish a low set point or a high set point, the set point is equivalent to an open window set point (Ehlers: col. 2, lines 32-45).

As per claim 63, the modified Riley teaches a method for controlling an HVAC system that is adapted to modify and control at least one environmental condition of an inside space of a structure, the structure having at least one window that opens and closes wherein the alarm is provided when an inside humidity level drifts beyond an open window humidity set point (Riley: col. 18, lines 26-31; *described is a system that triggers an alarm upon detecting an environmental condition that drifts beyond a set point wherein the system detects other environmental conditions including an inside humidity level*; Ehlers: col. 2, lines 32-45; col. 29, lines 38-41; *wherein an open window set point is an arbitrary number set by the user, thereby, anytime a user establish a low set point or a high set point, the set point is equivalent to an open window set point*).

As per claim 64, the modified Riley teaches a method for controlling an HVAC system that is adapted to modify and control at least one environmental condition of an inside space of a structure, the structure having at least one window that opens and closes wherein the alarm is provided when an inside air quality falls outside of an open window air quality range (Riley: col. 18, lines 27-31; *alarm provided when an environmental condition such as an inside air quality drifts beyond a set point*; Ehlers: col. 2, lines 32-45; fig. 4J; col. 45, line 39 through col. 46, line 8; *wherein an open*

*window set point is an arbitrary number set by the user, thereby, anytime a user establish a low set point or a high set point, the set point is equivalent to an open window set point*).

Claim 65 is rejected under 35 U.S.C. 103(a) as being unpatentable over Riley in view of Alles and Ehlers et al. ("Ehlers") as applied to claim 61, and further in view of Roy.

As per claim 65, although the modified Riley teaches a method for controlling an HVAC system that is adapted to modify and control at least one environmental condition of an inside space of a structure, the structure having at least one window that opens and closes wherein the alarm is provided when the temperature falls outside of a predetermined range (Riley: col. 18, lines 27-31; Ehlers), the modified Riley does not explicitly disclose an alarm being provided when the barometric pressure drops by a predetermined amount. Roy teaches a signal/alarm being provided when the barometric pressure drops by a predetermined amount (col. 4, lines 35-42; *a signal is provided when the inside barometer air pressure reading is below the outside air pressure by a predetermined value*). It would have been obvious to an artisan at the time of the invention to incorporate the method of Roy with the method of the modified Riley in order to overcome various ventilation problems and compensate for such conditions as cold air drafts caused by exhausting kitchen odors.

**(10) Response to Argument**

Appellant argued:

(a) Since Alles discloses setting heating and cooling temperature set points, Alles cannot be considered to teach deactivating a first portion of an HVAC to not modify and control at least one environmental condition of an inside space in accordance with a first set point and activating the same first portion of the HVAC system to again modify the environmental condition in the inside space if the environmental condition in the inside space passes a second set point. Alles further does not appear to disclose overriding, for example, the fan setting of the regular/normal schedule and then automatically returning to the fan setting of the regular/normal schedule, which is not the same as over-riding normal operation and then subsequently returning to normal operation.

(b) None of Alles, Lievel or Ehlers teach or suggest overriding the regular schedule temporarily at a second time, this override mode being based on a selected schedule override choice of a plurality of override choices.

(c) Although appellants assumed that the factual assertion set forth under Official Notice for the use of natural language choices such as “Come Home Early” was taken for the use of labels, specifically user input labels, and did not contest this factual assertion, appellants submits that it is improper to extend the factual assertion to cover, for example, “Come Home Early” override choices.

(d) There is no indication in either Ehlers or Riley of an alarm while the at least part of the HVAC system is deactivated or when an inside temperature drifts beyond an open window temperature set point.

The Office disagrees for the following reasons:

Per (a), Alles allows for multiple settings of set points and overriding thereof via pop-up menus based on user-selected schedule override choices (fig. 21). A first portion/component of an HVAC system, e.g. heater, blower, flue vent or other components, is activated when temperature reaches above a first set point such as 70 at a time when "Active 2101" to modify the environmental condition in the inside space (col. 31 line 40 through col. 32, line 60; components such as blower, vent as well as utilizing components to heat and cool). The first portion/component is deactivated when temperature reaches below a second set point 72 at a time when "Relaxing" 2101, thereby no longer modifying and controlling the environmental condition of an inside space. Alles further teaches overriding the fan setting of the regular/normal schedule when on "Vacation" 2222 and then automatically returning to the fan setting of the regular/normal schedule (fig. 22 and respective portions of the specification).

Per (b), the modified Alles teaches overriding the regular schedule temporarily at a second time, this override mode being based on user-selected schedule override choices of a plurality of override choices (Alles: fig. 22; e.g. "Vacation" or "Party" mode is scheduled; Liebl: figs. 2 and 9(A-C); col. 14, lines 33-67; Ehlers: fig. 4H).

Per (c), in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The modified Alles teaches a UI wherein the providing step comprises displaying a natural language schedule override choice that users input (Alles: figs. 21-

23; col. 32, lines 28-47). The teaching extracted from the factual assertion set forth under Official Notice was for the feature that these users' inputs such as "Come Home Early" are well known.

Per (d), Ehlers and Riley teach a method for controlling an HVAC system that is adapted to modify and control at least one environmental condition of an inside space of a structure, the structure having at least one window that opens and closes comprising the step of providing an alarm if one or more environmental conditions falls outside of a predetermined set point (Riley: col. 18, lines 27-31) while the at least part of the HVAC system is deactivated (Riley: col. 18, lines 3-25) and if one or more environmental conditions falls outside of a predetermined range (fig. 4J; col. 45, line 39 through col. 46, line 8). The alarm is provided when an environmental condition such as an inside temperature drifts beyond a temperature set point, i.e. the alarm is provided based on a detection of an inside temperature drifting beyond a set point, including activating/deactivating at least a part of the HVAC system to modify an environmental condition if the environmental condition passes a set point and activating/deactivating at least a part of the HVAC system to modify an environmental condition if a situation such as an open window is detected (Ehlers: fig. 4J; col. 45, line 39 through col. 46, line 8; Riley: col. 2, lines 9-21). Furthermore, the Ehlers and Riley teach an open window set point wherein the open window set point is an arbitrary number set by the user, thereby, anytime a user establish a low set point or a high set point, the set point is equivalent to an open window set point (Ehlers: col. 2, lines 32-45).

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Le Nguyen

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